

wherein a helicopter operating according to the ROSAR principle is used for the interferometric radar measurement.

8. The method according to claim 7, further comprising a step of calculating coordinates of a respective receiving point using a sight angle for representing image points on an integrated graphic display screen in the ROSAR system.

9. The method according to claim 9, wherein said antenna and a center of an image on said graphic display screen are in a fixed relationship.--

REMARKS

Reconsideration of this patent application is respectfully requested in view of the foregoing amendments and the following remarks.

The Examiner has provisionally rejected claims 1-3 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of U.S. Patent Application Ser. No. 09/889,758. The present application is patentably distinct from the '758 application because the present application is configured for use on the end of a turnstile of helicopter. The '758 application is created for use on a tower and claims a rotating arm.

The Examiner has objected to the drawings. FIG. 2 has been amended to clearly label the display screen. Further, image points on a graphics display screen are commonly known to those in the field, and the applicant believes that they have been adequately shown in the drawing. Additionally, the image points on a graphics display screen are included in a dependent method claim and are not an element of the apparatus being claimed.

The Examiner has rejected the specification and claims 1-3 under 35 U.S.C. 112, first paragraph. Claims 1-3 have been cancelled without prejudice and claims 4-9 have been added. Claims 4-9 and the amended specification clearly set forth the invention. The image points of the graphics display screen are described on pages 7 and 8 beginning on paragraph 3 of page 7. Further, the image points on a graphic display screen are commonly known to those in the field, and the applicant believes that they have been adequately described in the specification.

The Examiner has rejected claims 1-3 under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 1-3 have been cancelled without prejudice and claims 4-9 have been added and do not contain improper or ambiguous antecedents.

The Examiner has rejected claims 1-3 under 35 U.S.C. 103(a) as being unpatentable over *Brown, Bales, or Madsen et al*, any one in view of *Kreitmair-Stock et al*. Claims 1-3 have been canceled and claims 4-9 have been added.

None of the references mentioned by the Examiner describe an interferometric radar measurement in conjunction with the ROSAR principle. The ROSAR principle and interferometric radar measurement are described separately in the state of the art, but the combination of those principles as disclosed by the present invention provides an important advantage over the state of the art. For an exact three-dimensional radar measurement, movement of the platform which carries the radar measurement equipment is no longer necessary. This movement of the whole platform is replaced by a movement of the revolving rotary cross of the ROSAR equipment. As a consequence, exact three dimensional radar measurements are even possible when the carrying platform, for example a helicopter, is not moving, which means that the helicopter does not necessarily need to fly to perform exact three-dimensional radar measurements.

In addition, it has been clarified in the proposed claims, that in order to avoid phase ambiguity a transmitting/receiving antenna is proposed that is sharply focused in elevation. These technical features are not disclosed by a single reference or a combination of references mentioned by the examiner. As a

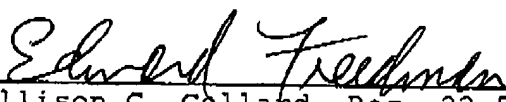
consequence, the applicant considers the proposed claims to be patentable over the state of the art.

Claims 1-3 have been canceled without prejudice. Claims 4-9 have been added. No new matter has been added. Accordingly, the Applicant submits that the claims as presented are patentable over the references cited, taken either singly or in combination.

Early allowance of the amended claims is respectfully requested.

Respectfully submitted,

ARIBERT WOLFRAMM ET AL. -1 (PCT)

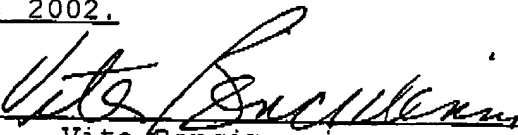

Allison C. Collard, Reg. 22,532
Edward R. Freedman, Reg. 26,048
William C. Collard, Reg. 38,411
Attorneys for Applicants

COLLARD & ROE, P.C.
1077 Northern Boulevard
Roslyn, New York 11576
(516) 365-9802

ACC:RWG

Enclosures: Attachments A and B

I hereby certify that this correspondence is being faxed to the U.S. Patent Office, Attention: Examiner: S Buczinski, Group 3662 at (703) 872-9326 on August 28, 2002.


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Attachment B

MARKED-UP SPECIFICATION
APPLICATION NO. 09/889,759
APPLICANT: ARJBERT WOLFRAMM ET AL. -1

EXAMINER: S. BUCZINSKI
GROUP: 3662

On page 7, paragraph 6, beginning on line 11:

The altitude h is actually not required in connection with the INROSAR system for representing the image ~~dots~~ points on the graphics display screen DS, but only the sight angle θ is used for calculating the coordinates of an impact point P on the integrated graphics display screen in the ROSAR system.

Furthermore, whether the angle of inclination of the antenna is known or not is unimportant as well because the representation on the display screen is only a relative representation of the image ~~dots~~ points with respect to the vertical line in relation to the base line B of the two antennas $A1$ and $A2$. The representation of the image is in fact dependent upon the position of the helicopter, for example due to the pitching; however, the antennas of the INROSAR-system and the center of the image are always in a fixed relation to each other. The altitude h and the angle of inclination α of the antennas are only required if a topographical chart with an absolute altitude H of the area over which the aircraft is passing is to be generated with the help of said INROSAR-system. The formulas specified above are useful also for a consideration of errors, as will be explained in the following.